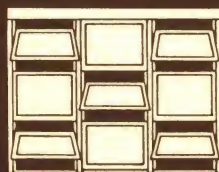
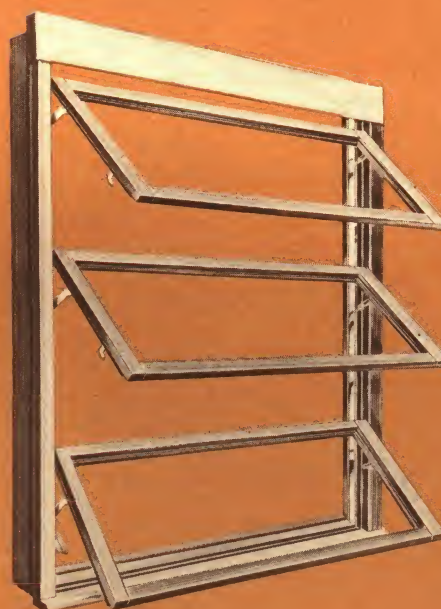


LUDMAN



LUDMAN

Auto-lok
AUTOMATIC LOCKING
PATENTED



wood windows



Catalog WW, 1955

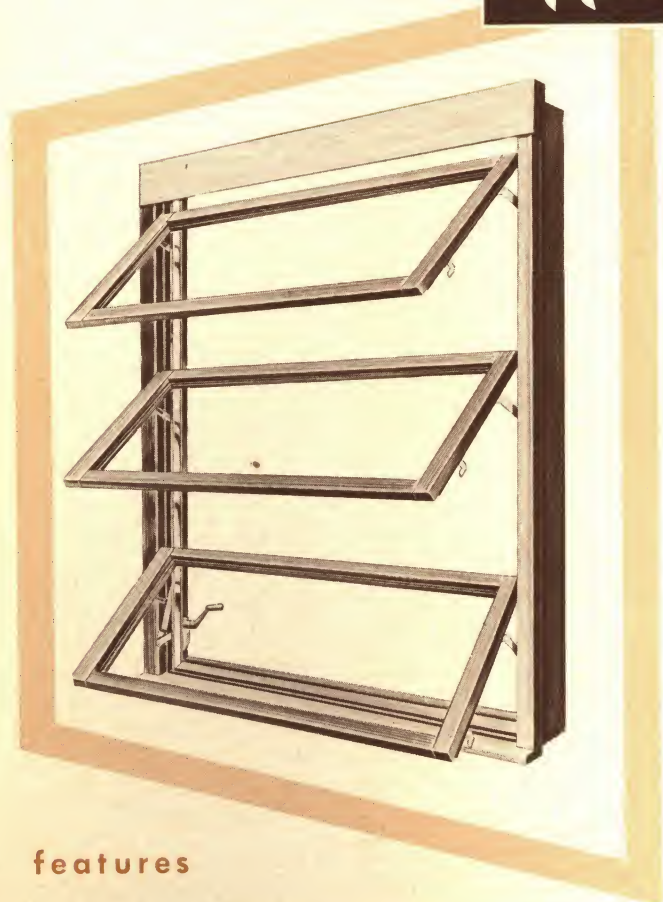
AUTO-LOK ALUMINUM AWNING WINDOWS
and LUDMAN INTERMEDIATE PROJECTED
ALUMINUM WINDOWS

See SWEETS Section $\frac{5a}{Lu}$

LUDMAN ALUMINUM FRAMED SLIDING
GLASS DOORS

See SWEETS Section $\frac{4a}{Lu}$

LUDMAN LEADS THE WORLD IN WINDOW ENGINEERING



features

concealed hardware



No unsafe, unsightly mechanism exposed to collect dust. Heavy aluminum cover adds extra strength. Compact roto-type operator does not interfere with drapes, blinds, etc.

ventilation when raining



No more running to close windows . . . rain can't enter through slanting sash.

practical beauty



Narrow horizontal lines and graceful tilt of sash in every open position add distinction to any home . . . lend themselves to a wider variety of architectural arrangements.

temperature control



Warmer in winter—seals itself shut like the door of your refrigerator . . . keeps heat in . . . cold out. Cooler in summer—opens widest . . . scoops air inward and upward . . . luxurious ventilation, but no drafts.

Auto-Lok Wood Awning Windows, with performance proven Auto-Lok hardware, are the first wood windows specifically engineered and built to combine the best features of ALL window types. It is no longer necessary to make allowances for certain weaknesses and inefficiencies when choosing a wood window, in order to gain the advantage of a particular feature. Auto-Lok Wood Awning Windows cost no more than a good grade of ordinary "old fashioned" windows. Extra strong sash and extra heavy frames retain narrow sight lines. They are toxic treated against rot, termites, fungi, etc. Unsurpassed in beauty, performance and economy, they are adaptable to all types of architecture in all climatic extremes.

interchangeable inside screens and storm sash



Can be handled all from the inside. Reduce a day's work to an hour.

easiest to clean



Nothing to lift out . . . no sash to remove . . . no gadgets to disengage. Simply open wide and clean all glass from inside . . . top sash, too!

fresh air nite vent

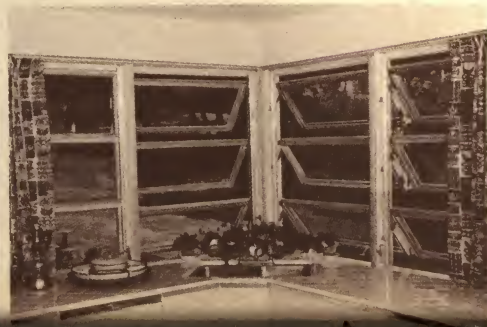


Bottom sash opens slightly for night ventilation, while upper sash remain securely locked . . . fresh air circulation during bad weather assured!

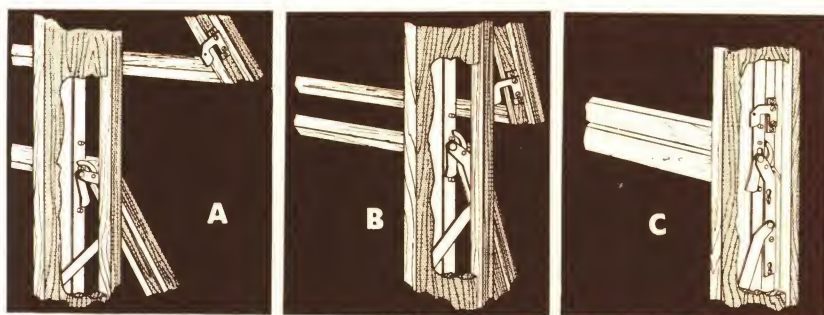
finger-tip control



Perfectly balanced mechanism operates window at the touch of a finger. No adjustments ever necessary . . . Auto-Lok never sticks, never rattles.



operating principle



WATCH THE "HOOK" AND THE "LUG" PULL IT SNUG!

PATENTED AUTO-LOK operation assures a lifetime of trouble free service. Auto-Lok Wood Awning Windows with patented Auto-Lok Hardware are the most versatile on the market for all applications.

Auto-Lok hardware eliminates the wear at critical hinge points that results in sash that cannot be closed tight. In all windows where more than one sash is attached to a common operating bar and actuated by a single operator, force must be applied to the critical hinge points at the top of each sash in order to close the sash tight at the bottom. With patented Auto-Lok operation no destructive force is applied on hinges. Auto-Lok hardware is so perfectly balanced that sash weight aids opening and closing without creating pressure on the operating mechanism. Therefore, the entire operation is friction-free, effortless and smooth. Every sash in an Auto-Lok window closes tight automatically . . . always. There's no wear . . . no maintenance . . . no adjustment necessary. Safety-Lok pulls bottom sash in tight and securely locks it . . . provides extra protection against intruders.

The illustrations shown here clearly explain the patented Auto-Lok operating principle. (A) While sash are swinging in toward the frame the vertical operating bars at each side of window move up. (B) Note how lugs on operating bars and hooks on sash commence to move into position as the bars continue to move up, so wedging action may be applied to pull the sash in tightly against the frame. (C) The sash are pulled in snug, and pressure against vinyl weatherstripping assures a complete seal (like the door of your refrigerator). Automatic locking has commenced. (D) Final "locked" stage of Auto-Lok operation . . . hooks have moved in, adding extra locking action near the bottom of the sash, on both sides . . . locking all four corners of each sash.

This action is entirely automatic and is accomplished during the normal, effortless turning of the operator handle.



tightest closing window



Note how weatherstripping (A) is compressed when sash is closed against jamb.



Horizontal weatherstripping (A) crosses over vertical weatherstripping (B)

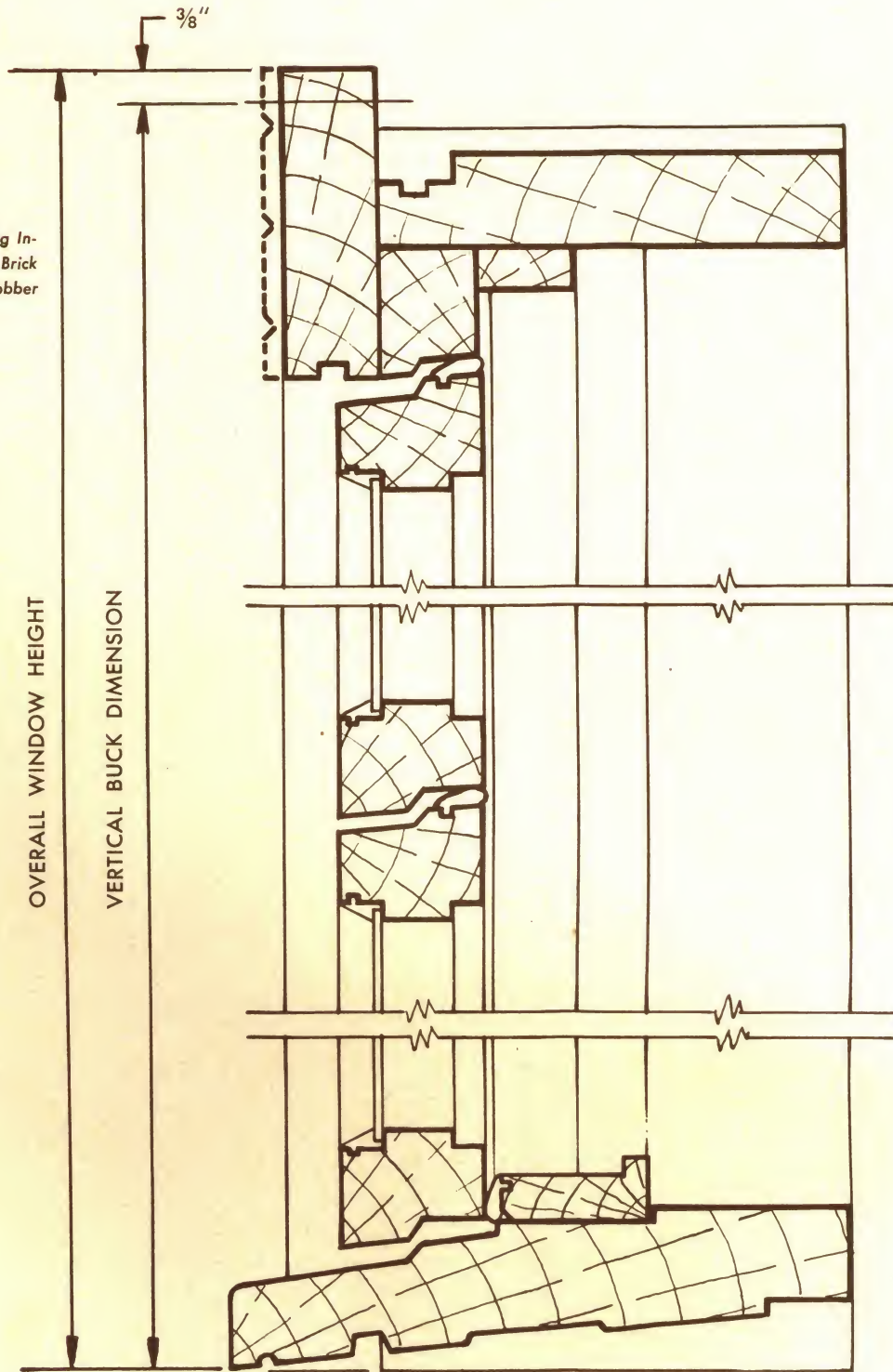
Unique weatherstripping combined with patented self-locking action and double contact make Auto-Lok the tightest closing window ever made. Every closing surface is ingeniously weathered with extruded elastomeric vinyl*. When closed, the sash compress the weatherstripping against the frame, forming a positive "seal."

Auto-Lok provides the most effective closure known against cold winds, dust storms, driving rains and hurricanes. This tight closure eliminates uncomfortable "cold spots" around windows . . . reduces fuel and air conditioning expense.

*Exhaustive laboratory tests reveal that elastomeric vinyl weatherstripping will maintain its effectiveness for the life of the building.

vertical section half size

Note: Brick Mold Casing Indicated by Dotted Lines. Brick Mold or Flat Casing Jobber Option.

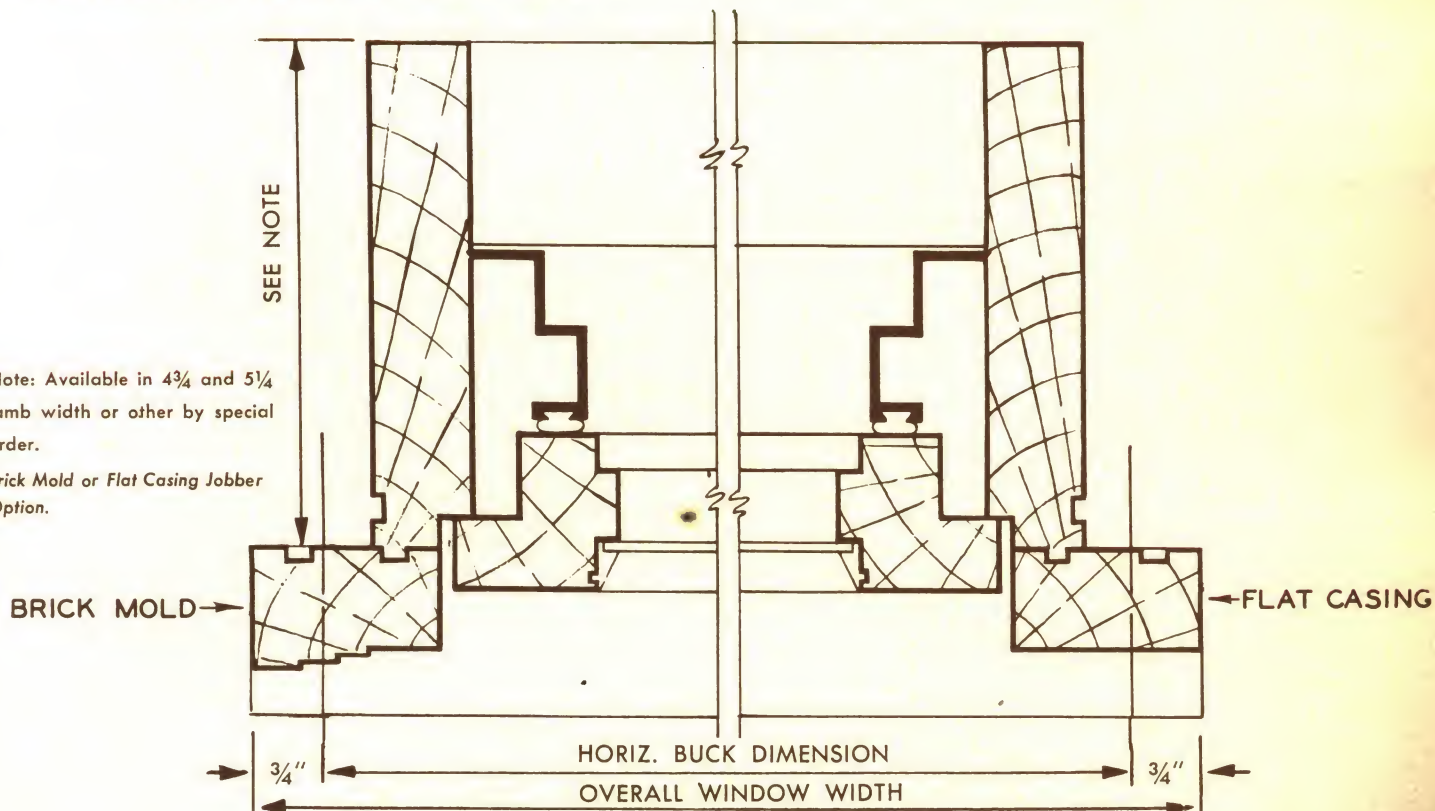


ENGINEERED BY LUDMAN

horizontal section half size

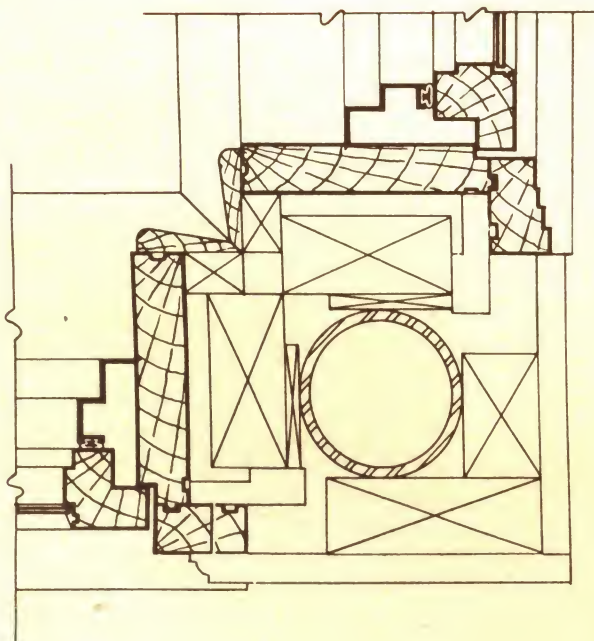
Note: Available in $4\frac{3}{4}$ and $5\frac{1}{4}$ jamb width or other by special order.

Brick Mold or Flat Casing Jobber Option.



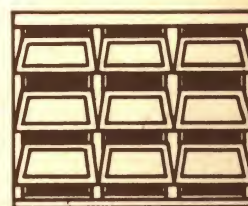
90° corner mullion

3" = 1'-0"



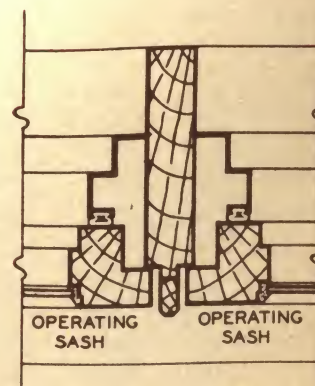
double and triple units

Designed to achieve maximum architectural effect. To determine buck opening width of Double Unit multiply nominal sash width by 2 and add 2"; Triple Unit multiply nominal sash width by 3 and add 2".



mullion jamb of double or triple units

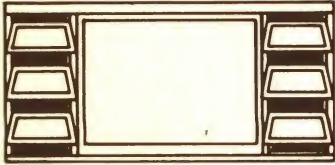
3" = 1'-0"



sectional details continued



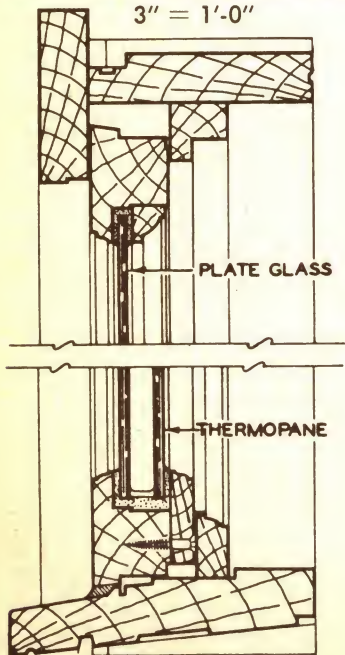
COMBINES THE BEST FEATURES



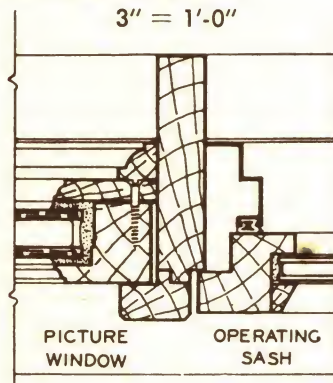
◀ picture window with two operating sash

Picture windows can be supplied in any desired width for glazing with $\frac{1}{4}$ " plate or insulated plate panels. To determine buck opening width add width of picture window glass to nominal width of each sash plus 6".

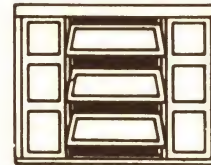
vertical section picture window



mullion jamb of picture window
and operating sash

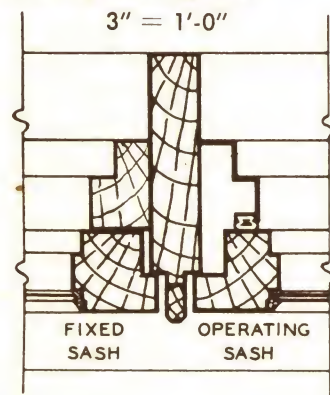


18" fixed sidelight sash on
each side of operating sash



Muntins in sidelight line up with sash. To determine buck opening width add nominal width of all sash plus 2".

mullion jamb of sidelights
and operating sash



Auto-Lok provides greatest selection of possible combinations of window arrangements, with continuous heads and sills in widths of 18" to 156" in 6" increments.

size schedule

dimensions shown buck to buck

SASH HEIGHTS	1'-8"	2'-2"	2'-8"	3'-2"	3'-8"	4'-2"
16"	1-18-16	1-24-16	1-30-16	1-36-16	1-42-16	1-48-16
18"	1-18-18	1-24-18*	1-30-18	1-36-18*	1-42-18	1-48-18*
20"	1-18-20	1-24-20	1-30-20	1-36-20*	1-42-20	1-48-20*
2'-0"	2-18-16	2-24-16	2-30-16	2-36-16	2-42-16	2-48-16
2'-4"	2-18-18	2-24-18*	2-30-18	2-36-18*	2-42-18	2-48-18*
2'-8"	2-18-20	2-24-20	2-30-20	2-36-20	2-42-20	2-48-20
3'-0"	3-18-16	3-24-16	3-30-16	3-36-16	3-42-16	3-48-16
3'-4"	3-18-18	3-24-18*	3-30-18	3-36-18*	3-42-18	3-48-18*
3'-8"	3-18-20	3-24-20	3-30-20	3-36-20	3-42-20	3-48-20
4'-0"	4-18-16	4-24-16	4-30-16	4-36-16	4-42-16	4-48-16
4'-4"	4-18-18	4-24-18*	4-30-18	4-36-18*	4-42-18	4-48-18*
4'-8"	4-18-20	4-24-20	4-30-20	4-36-20	4-42-20	4-48-20
5'-0"	5-18-16	5-24-16	5-30-16	5-36-16	5-42-16	5-48-16
5'-4"	5-18-18	5-24-18*	5-30-18	5-36-18*	5-42-18	5-48-18*
5'-8"	5-18-20	5-24-20	5-30-20	5-36-20	5-42-20	5-48-20

notes

Explanation of Sizes

1st numeral indicates number of sash contained in frame. 2nd numeral indicates nominal width of each sash. 3rd numeral indicates nominal height of each sash. Glass sizes are determined by deducting 4" from nominal sash width and 2" from nominal sash height.

Sizes shown with asterisk are standard and normally carried in stock. Others are standard but not stocked.

Screens and Storm Sash either aluminum or wood available for all sizes.

LUDMAN'S SINGLE SASH WOOD AWNING WINDOW

SASH HEIGHTS

16", 18", 20"

SASH WIDTHS

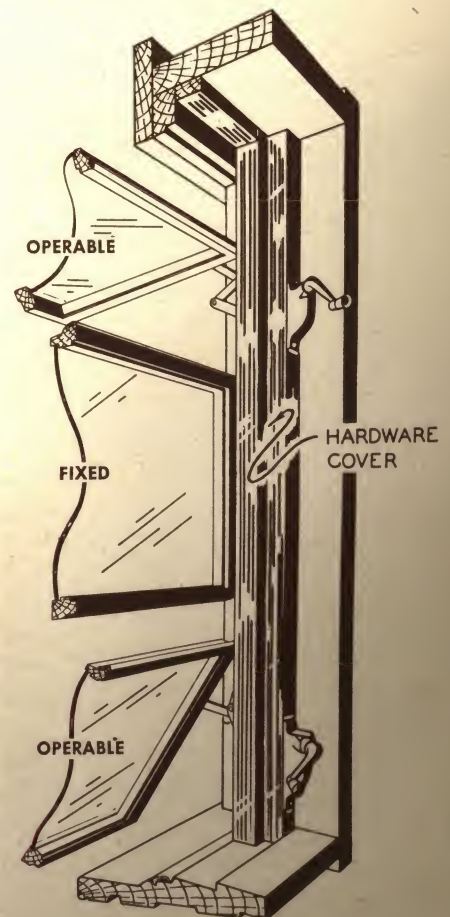
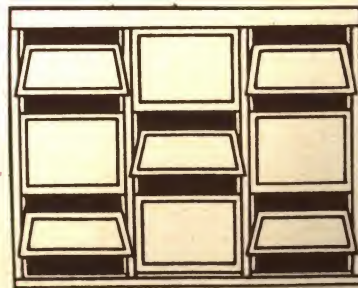
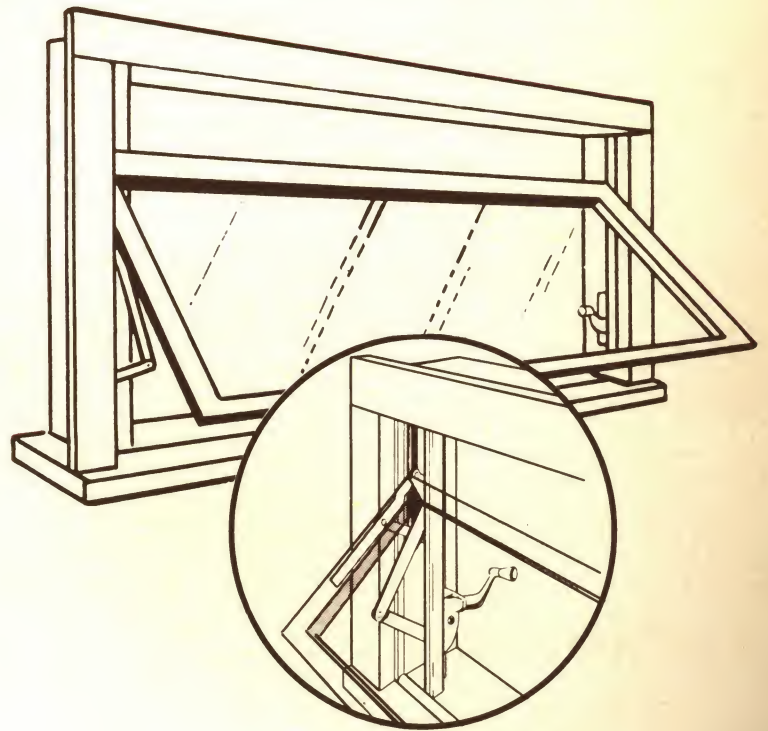
UP TO 48"

Designed for low-medium cost housing, Ludman's single sash unit features utility hardware that provides individual roto-type operation for each sash. Units can be used separately or stacked in multiples to form window ribbons or window panels.

Continuous heads, sills and jambs eliminate the unattractive heavy horizontal and vertical sight lines usually found when single sash units are stacked. When multiple units are stacked horizontally, right and left hand hardware can be attached to single common jambs.

Continuous extruded aluminum cover plates completely conceal the hardware . . . contain the screen reveal . . . carry vertical vinyl weatherstrip . . . and provide the locating and attaching surface for the roto-operator and latch.

Any sash used in multiples can be fixed if desired. Inside screen and storm sash are interchangeable.



specifications

GENERAL — Windows are to be Auto-Lok weatherstripped wood awning type windows operated with hardware as manufactured by Ludman Corporation, North Miami, Florida, in sizes and styles shown on drawings.

MATERIAL — All sash and frame members shall be Ponderosa Pine (other woods available if specified). Sash shall have a minimum thickness of $1\frac{1}{16}$ ". Jamb and head frame members shall be of $\frac{5}{4}$ " material. Sills shall be of $\frac{6}{4}$ " material. All wood shall be toxic and water repellent treated against rot, termites, fungi, etc.

CONSTRUCTION — All windows shall be assembled in a workman-like manner to assure weather-tight construction. There shall be two weathering contacts, one of which shall be a weatherstripped contact, around the perimeter of all opening sash. Wood frame jamb members shall be reinforced by a permanently attached extruded aluminum shape which serves also to conceal and protect all operating hardware. Top hinge members of each sash shall operate on roller bearings engaged in a channel.

OPERATION — All the following actions shall be automatically accomplished in the course of normally opening or closing the window by means of the roto adjuster alone.

1. All outward opening sash of standard windows shall open a minimum of 70 degrees.
2. To permit easy cleaning from inside, top sash on all standard windows shall drop down a minimum of four inches.
3. While upper sash remain closed, the bottom sash shall open for partial ventilation.
4. All upper sash shall be securely latched against the frame on both sides of each sash, so that the weatherstripping is compressed continuously between sash and frame. When so securely locked (latched) the sash shall not rattle or flutter. There shall be an independent lever type latch which shall securely lock the bottom sash after closure by the roto adjuster.

HARDWARE — All operating hardware including hinges shall be concealed from view and protected from the elements when window is closed. All operating hardware, roto adjuster and latch shall be attached at point of assembly. Roto adjuster shall be standard Auto-Lok type. It shall not be necessary to move the screen or storm window to operate the windows.

WEATHERSTRIPPING — Weatherstripping shall be an extruded hollow plastic shape, either Koroseal or Elastomeric Vinyl, to assure better compression and weatherstripping action, and shall not be metal, fiber, rubber or rubber composition. When windows are closed, weatherstripping shall be tightly compressed around complete perimeter of all sash. When windows are opened, weatherstrip shall return to its normal shape.

NOTE: portions in parentheses are architect's option.

AIR INFILTRATION — Air infiltration shall not exceed .250 cubic feet per minute per lineal foot of crack when subjected to a static air pressure equal to that exerted by an outside air velocity of 25 miles per hour. (A photostatic copy of the results of tests made by a recognized testing laboratory on a stock window shall be furnished to the architect upon request.)

MULLION, TRIM, Etc. — Mullion posts, mullion trim, stools, aprons and other trim, etc. (unless specified herein) shall be included in millwork specification and not furnished as part of window contract.

SCREENS — (where specified) screens shall be included in the window. Ludman aluminum screen frames with 18 x 14 aluminum mesh shall be furnished. Screen frame shall fit in recess provided on the window and fastened by means of clips which will permit easy removal of screens. (Ludman wood frame screens with 18 x 14 aluminum colored plastic screen cloth shall be furnished when shown on drawings.)

STORM SASH — (Storm sash, when shown on drawings, shall be interchangeable with screens and shall be included in storm sash specification and shall not be furnished as part of window contract, unless specified herein.)

DRAWINGS AND INSTALLATION DETAILS — The window manufacturer shall furnish standard details showing recommendations for the installation of the windows. (If called for in these specifications, manufacturer will furnish shop drawings or special installation details.)

ERECTION — The window erector shall securely fasten window in place in a straight, level and plumb condition, without distortion of the windows and shall make final adjustments for proper operation after glazing.

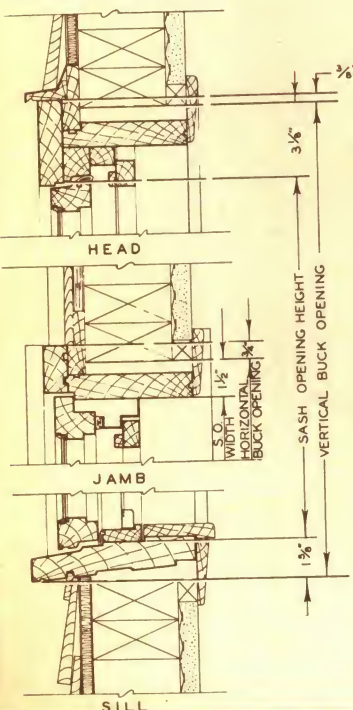
CAULKING — (All windows shall be caulked by others using a suitable caulking compound to accomplish a thorough weather-tight seal around the entire frame perimeter. Caulking shall be included in caulking specification and not be furnished as part of window contract.)

GLAZING — All sash up to 36" wide shall be glazed at Factory with SSB glass; over 36" wide with DSB glass unless otherwise specified. (Windows shall be supplied unglazed for jobsite glazing. Glass and glazing shall be included in glazing specification and not furnished as part of window contract.) (Thermopane or Twin-dow glazing where specified.)

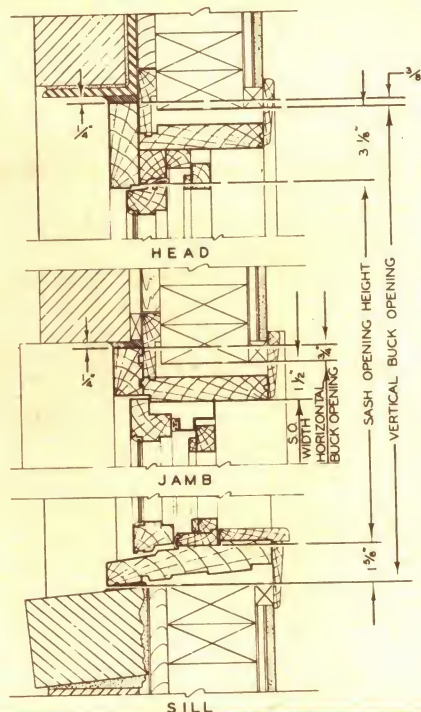
FINISH — (All painting, varnishing, shellacing, etc., including priming, shall be included in painting specification and not furnished as part of window contract.)

installation details $1\frac{1}{2}$ " — 1'-0"

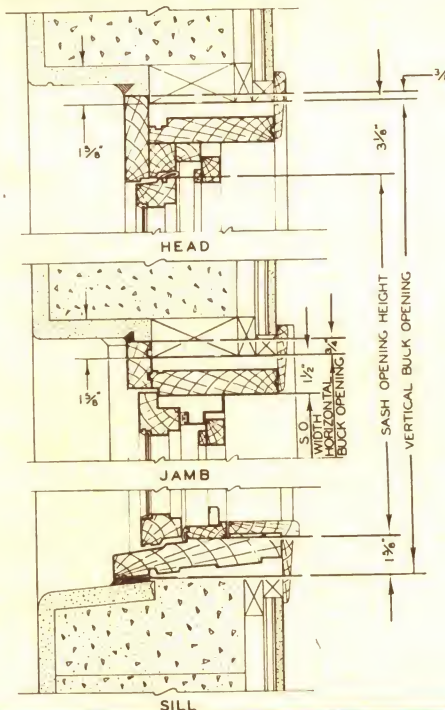
frame construction



brick veneer



concrete block



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